INTERNATIONAL SEARCH REPORT

International Application No PCT/US 02/30570

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 B30B11/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 B30B A61J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Jaiegory		
Y	US 3 029 752 A (FRANK RAYMOND G)	1,3,
•	17 April 1962 (1962-04-17)	13-15,
	column 4, line 39 - line 52; figure 1	17,19,20
Υ	GB 1 235 926 A (USM CORPORATION)	1,3,
	16 June 1971 (1971-06-16)	13-15, 17,19,20
	page 3, left-hand column, line 40 - line	
	59; figures	
Α	US 4 292 017 A (DOEPEL WALLACE A)	1,13
	29 September 1981 (1981-09-29)	
	cited in the application column 5, line 53 -column 6, line 21;	
	figures	
	-/	
		WILLIAM

X Further documents are listed in the continuation of box C.	Patent family members are listed in annex.		
 Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed 	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family		
Date of the actual completion of the International search	Date of mailing of the international search report		
16 December 2002	0 3. 0 4. 2003		
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2	Authorized officer		
Nt 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	GODOT, T		

1

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 02/30570

C.(Continua	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
А	PATENT ABSTRACTS OF JAPAN vol. 012, no. 091 (M-679), 24 March 1988 (1988-03-24) & JP 62 230500 A (KYOWA HAKKO KOGYO CO LTD), 9 October 1987 (1987-10-09) abstract	1,13
Α	PATENT ABSTRACTS OF JAPAN vol. 007, no. 050 (M-197), 26 February 1983 (1983-02-26) & JP 57 200502 A (YOSHITSUKA SEIKI:KK), 8 December 1982 (1982-12-08) abstract	1,13
A	PATENT ABSTRACTS OF JAPAN vol. 018, no. 514 (M-1680), 28 September 1994 (1994-09-28) & JP 06 179098 A (KAO CORP), 28 June 1994 (1994-06-28) abstract	1,13
ALL DESCRIPTION OF THE PROPERTY OF THE PROPERT		

1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US 02/30570

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 3029752	Α	17-04-1962	DE	129952 9 B	17-07-1969
GB 1235926	A	16-06-1971	BE CH DE DK ES FR NL US	717989 A 486987 A 1752695 A1 123588 B 356378 A1 1584021 A 6809802 A ,B 3430532 A	16-12-1968 15-03-1970 11-02-1971 10-07-1972 01-01-1970 12-12-1969 15-01-1969 04-03-1969
US 4292017	Α	29-09-1981	CA DE GB GB GB JP US	1150028 A1 3124702 A1 2079664 A ,B 2127734 A ,B 2133339 A ,B 57025852 A 4362493 A	19-07-1983 25-02-1982 27-01-1982 18-04-1984 25-07-1984 10-02-1982 07-12-1982
JP 62230500	Α	09-10-1987	NONE		
JP 57200502	A	08-12-1982	JP JP	1204944 C 580373 61 B	11-05-1984 16-08-1983
JP 06179098	Α	28-06-1994	NONE		